



The Surveillance and Systems Engineering Department



The Surveillance and Systems Engineering Department (J30) plans, develops, acquires, and manages a diverse set of engineering and programmatic capabilities, not only for the Navy and Marine Corps, but also for the National Science Foundation (NSF), Joint, and Allied Forces — capabilities which enhance readiness, train and enable operating forces, and deter conflict. This department provides management

systems engineering, system integration, modeling and simulation, acquisition, installation, environmental and electromagnetic interference testing, software services, and logistics management for shore, surface, and submarine inertial navigation programs, and integrated undersea surveillance systems.

The Air Traffic Control (ATC) Systems Engineering Division (J31)

performs in-service engineering for naval shore-based air traffic control systems worldwide, and provides a centralized point of contact for assigned mission systems and equipment. The main areas of expertise are acquisition, design, development, engineering, installation, software support, management, and

logistics. This division comprises a military air traffic control operations advisor, program manager, chief engineer, and five branches.

The Engineering Support Technologies Division

(J32) provides engineering and technical services including radiation detection, indication and computation (RADIAC) acquisition and field management, electromagnetic environmental effects testing and analysis, C4ISR modeling and simulation, geospacial information systems development, network management, and new technology implementation, including working with the Next Generation Internet.

The Platform Integration Division (J33) is responsible

for a myriad of engineering and technical tasks and support issues, but the



primary focus is ship design, integration, test, and installation for both new construction ships and back-fit ships. The division's turnkey processes, which are used on a variety of ship classes, as well as numerous shore installation sites, allow them to design, integrate, build, and test an entire equipment suite prior to delivery to the customer. This

minimizes risk and quickly places leading-edge technology within a system; thereby, reducing time and cost. Additionally, this division is instrumental in advanced network services and system administration — the design and support of hardware and software network systems and workstations that support both DoD and non-DoD customers.

The Intelligence, Surveillance, Reconnaissance & Navigation

Division (J34) provides installation and life cycle support of the Ring Laser Gyro Navigator for the Navy's surface and sub-surface vessels. Areas of expertise include engineering, technical and logistical life cycle support for the

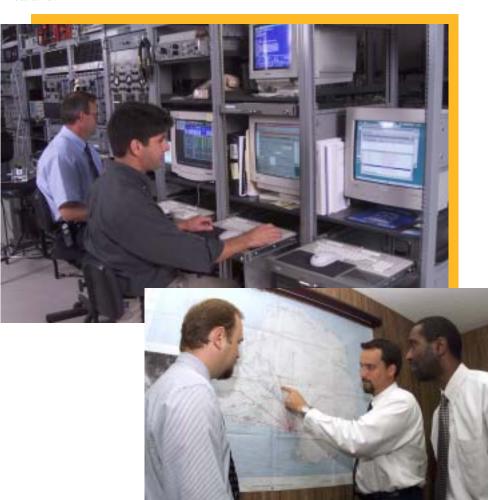




Navy's Integrated Undersea Surveillance system, lesson plan development for creating integrated information technology architectures, and the development of a remote-controlled waterborne vehicle used to intercept hostile intruders, as well as other *Homeland Defense* initiatives.

The Aviation Technical Services (ATS) and Engineering Division

(J36) provides operational air traffic control, meteorological, and ground electronics maintenance services and support for ATS operations, systems, and equipment worldwide. The division includes an Antarctic program office, an ATS program manager, a NSF project manager, a NSF aviation program manager, and four branches. Current responsibilities comprise direct operational, engineering, logistics, and planning support to the NSF and the United States Antarctic Program on the Antarctic Continent, and in Christchurch, New Zealand.



The Communication Systems

Department



The Communication Systems Department (J50) provides technologically advanced and innovative systems engineering and integration expertise for development, implementation, and maintenance of communication and information transfer systems across the frequency spectrum, and around the globe. Information, information processing, and communications networks are the core elements of every military and business activity in today's world. This department applies technical knowledge and expertise in service-specific, Joint, and coalition-interoperable communication architectures to deliver and integrate state-of-the-art communication capabilities developed for the warfighter, but also proven to be effective in civilian, humanitarian, and peacetime applications.

This department's expertise is aligned into eight divisions, each playing a crucial part in engineering, implementing, and supporting core technology areas — telecommunications and switched networks, integrated networks and network management systems, tactical and expeditionary communications, satellite systems, wireless communication systems, network applications, web services, information systems, and advanced technology communication systems.

The Telecommunications and Switch Networks Division (J51)

provides expertise on both wireline and wireless communication systems, major integrated telephone, matrix and packet switch networks, data transfer systems, intelligent information infrastructure (local, local area network (LAN), and metropolitan), shipboard interior voice communications, and shore-based tactical switching systems. This division applies network health tools, network security, and modeling capabilities to ensure optimum network and element



management. Other areas of expertise include project management, acquisition, systems engineering and integration, configuration management, system implementation and certification, in-service engineering, and life cycle management. This division also tests,

evaluates, and demonstrates emerging technologies (voice over packet, wireless versus wireline), and commercial standards-based technologies to determine their application toward more efficient voice, video and data communication systems.

The Integrated Systems Division (J52) offers hardware and software integration expertise — including new technology insertion, application support, network design, infrastructure upgrades, and network management services — to a wide variety of Navy, Joint, and non-DoD customers. This division supports the Joint Training, Analysis and Simulation Center under U.S. Joint Forces Command; the Network Operations Center for the Relocatable Over-the-Horizon Radar Program under Naval Network and Space Operations Command; ashore and afloat naval messaging systems under SPAWAR; as well as an array of engineering, installation and logistics management services for the State Department's communications and networking requirements.

The Tactical Communications Division (J53) services all areas of Fleet and submarine tactical communications with a frequency range between 30 hertz and two gigahertz — including life cycle engineering for ship or submarine interior and exterior communications equipment and systems. This division

provides global on- and off-site shipboard technical assistance, advanced products test and evaluation, and overall communication system signal analysis, from baseband signals to the radio frequency leaving the platform or shore station. Four specific responsibilities include acquisition engineering agent, in-service engineering agent (ISEA), technical support agent, and local area services. This division is the ISEA for the Navy's extra-low frequency, very-low frequency, low frequency, high frequency, and ultra-high frequency

line-of-sight communication systems.

The Satellite Systems Division (J54) provides integrated satellite communication solutions, including satellite system design, development, engineering, integration, testing, installation, and operations management. This division also operates a full-service satellite communications laboratory test facility that supports developmental equipment interface, Fleet interoperability, system specification compliance, operational, acceptance and Joint interoperability certification testing. The laboratory is an integral part of the Center's technical network,

the SPAWAR systems integration environment, and the distributed engineering plant.

The Communication Systems and Network Operations Division (J56) provides full-service telecommunication management support services. Located on the Naval Air Station in Pensacola, Florida, this division maintains a wide range of specialized customer support functions which include Internet services, network engineering, and integrated network management.

The Information Systems Division (J58)

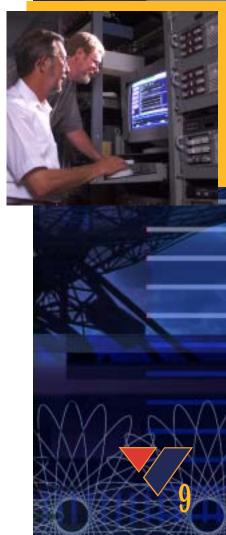
specializes in delivering high performance software, multidimensional database management systems, performance measurement, data modeling, web enabled mobile applications, and integrated telecommunication

services. One office, located on the Naval Air Station in Pensacola, Florida, has resident experts who design, develop, deploy, and manage multitier information systems. Other services include around-the-clock operations, data warehousing, legacy systems migration, application encapsulation, biometric integration, rapid prototyping, systems simulation, and network integration. Another office, located on the Naval Air Station in Corpus Christi, Texas, is staffed with information technology experts who provide a full range of telecommunication and information management support services.

The European Office (J50D) offers a wide range of communication systems expertise to the entire European Area of Responsibility. This division, which has offices in Germany, England, Switzerland, Spain, Italy, and the Balkans, supports the Joint warfighter in all areas of C4ISR. Critical communication services are provided to the U.S. Army, Navy, Air Force, and Special Operations forces stationed in Europe. SPAWAR Systems Center, Charleston's European Office provides subject matter experts in all SPAWAR core competencies. This includes voice, video, and data systems; global command and control system-maritime (GCCS-M); information management; video teleconferencing; software and web development; LAN/WAN (wide area network); C4I infrastructure; Internet Protocol management; and administration and telecommunications management.

The Yorktown Technical Center (J50Y) provides specialty engineering services, system design, engineering analysis, software development, program management, acquisition engineering, and logistics support. Located in Yorktown, Virginia, resident experts perform full-spectrum specialty engineering services, including analog and digital circuit design, digital signal processing, fiber optics, electromagnetic interference, nuclear hardening engineering, risk assessment, and embedded systems.







The Command and Control Systems Department



The Command and Control Systems Department (J60) designs, develops, tests, acquires, deploys, and upgrades tactical and non-tactical information systems used by U.S. Navy, Marine Corps, and Joint Force Commanders — systems which provide effective direction and control of sea, air, and land forces. These state-of-the-art systems typically receive, classify, and integrate data from many sources to produce coherent graphic and statistical displays of tactical situations in real time. Secure conduits allow subordinate commanders to transmit their unit's operational orders, and then transmit on-scene assessments to strategic commanders. This capability provides a better understanding of threats, risks and options; thereby, enhancing the force commander's decision-making capabilities.

The C4I Systems
Division (J61) designs,
integrates, tests, evaluates,
fields, trains, documents,
and provides software,
hardware, and life cycle
support for various
elements of C4ISR
systems — the GCCS-M,
an evolutionary acquisition
program; the Marine
Corps Common Aviation
Command and Control



System (CAC2S); and the Unit Operations Center — supporting Marine Corps aviation and ground combat C4ISR requirements, foreign military sales, and other battle management C4ISR-related projects. This division delivers C4ISR capabilities in various mobile configurations, as well as for ground, maritime patrol aircraft, and naval component commanders. Cradle-to-grave support is also provided for various afloat video display systems that distribute intelligence and operational information. Fully instrumented test laboratory facilities and associated external communication suites are maintained in Charleston. South Carolina, and at the Naval Air Warfare Center-Aircraft Division in Patuxent River, Maryland, representing the major operational command and control nodes.



The Engineering Support Facility Division (J62) provides engineering analysis and design, repair, fabrication, hardware and software integration, calibration, installation, and logistics products and services. This division is accredited by the American National Standards Institute (ANSI) as quality assessors. ANSI certified that this division's quality management system complies with the International Quality System Standard ISO 9001 and Q9001. ISO (International Organization for Standardization) is a worldwide federation of national standards from 130 countries. This certification assures products and services repeatedly meet customer requirements.

The Joint Information Systems Division (J63) provides program accountability, develops planning data, consolidates customer requirements, executes technical programs, and provides life cycle support of information systems for the command and control of forces and resources. Some specific systems include the integrated shipboard network systems, the GCCS-M, and the Navy Tactical Command support system (both afloat and ashore).

This division offers complete system and production design support—drawings, procurement, integration, quality assurance and checkout, installation engineering, on-the-job training, hardware and software engineering technical assistance, maintenance engineering, system deficiency evaluation, interim supply support, test and evaluation, software installation, configuration management, and help desk support. This division also provides software support for the Relocatable Over-The-Horizon Radar with command center design, systems integration testing and C4I operations and installation; designs and





implements multimedia conference rooms; integrates software and assesses new technology; provides web based tactical information access and dissemination capabilities for the Atlantic Fleet; and GCCS-M/GCCS system administration.

The Computer Services Division (J64)

provides integrated computer solutions and technical services which support software, knowledge delivery, and networking systems. This division offers project management; web, software

and hardware system design, development and integration; acquisition; installation; testing; and technical support — specializing in web technologies and software system development (e.g., management of financial, information, and configuration systems; databases, application integration, technical documentation; and the innovative application of existing or emerging technologies).

Multimedia areas of expertise include content development, data warehousing, data mining, knowledge management, wireless technology (both data and voice), networking,

technical training, distance learning, collaborative engineering and the merging of technologies to form end-to-end high-technology integrated solutions. This division offers both off- and on-site technical support of information technology systems — program and project management, software and network development, installation, maintenance, help desk and independent verification and validation support — including both high-level and end-user consultations, information sharing, research, specification development, advisory and interoperability testing.



The Intelligence and Information Warfare (I2W) Systems Engineering Department



The I2W Systems Engineering Department (J70) plans, develops, acquires, and manages technologically superior I2W systems for the Navy, Marine Corps, National Agencies, Joint and Allied Forces. This department provides systems engineering, installation, certification, software, and logistics support for shore, surface, and submarine cryptologic and intelligence systems worldwide; and electronic security systems for Navy, Marine Corps, and other Federal agencies.

The Information Warfare Exploitation Systems
Engineering Division (J71) provides expertise in direction
finding systems, signal acquisition, analysis, and portable
exploitation systems. Technical services include systems
engineering, systems development, software engineering,
acquisition engineering, configuration management, including all
levels of life cycle support for IW exploitation systems installed at
shore sites, on surface ships, and submarines worldwide.

The Information Assurance (IA) Engineering Division (J72) provides security engineering to enhance the C4I systems security posture by measuring the effectiveness of organizational electronic security, and recommending communications security, computer security, and TEMPEST countermeasures where deficiencies exist. The IA program also encompasses other





security disciplines — physical, administrative, personnel, emanations, and operational security. These services, which are geared primarily to DoN activities, are also afforded to other Federal agencies. Additionally, the division provides engineering assessments, design, and installation for the assurance of network and processing system confidentiality, integrity, and availability for the information they store, transport, and process.

The Intelligence Systems Engineering

Division (J73) provides systems engineering design and development, long-range planning, software engineering, configuration management, including all levels of life cycle support, and acquisition for specialized programs on ships, aircraft, and shore facilities worldwide — acting as the in-service engineering agent (ISEA) for numerous systems. Specific areas of expertise include Defense intelligence

programs, special intelligence communication and imagery systems, modeling and simulation, video teleconferencing, unmanned aerial vehicles, networking, and instrumentation technology.

The Force and Infrastructure Protection Engineering Division

(J74) provides management, planning, design, engineering, installation, testing, certification, technical support, and procurement for Navy, Marine Corps, and other Federal agency-sponsored electronic security systems, automated control systems,

and information management systems. This division automates the security for protection and operations of DoD physical assets; and develops, integrates, and tests systems for the Defense Advanced Research Projects Agency and the National Institute of Justice.

The Information Warfare

Engineering Division (J75) provides ISEA-type services for various shore based consolidated cryptologic programs, and acquisition and life cycle management for cryptographic systems. This division maintains expertise in secure voice, electronic key management systems, and the full spectrum of cryptographic devices.

The Network Engineering, Implementation, and Operations Division (J76) is a full-service IT provider for the mid-Atlantic and Northeastern region, offering a broad range of experienced network engineering and maintenance, along with a full suite of storage backup, seat management, and select security services. This division specializes in application service provider development, wireless interface and application solutions, and provides worldwide system development efforts ranging from client/server and database administration applications to network security solutions and management.

The Computer Information Systems Engineering

Division (J77) provides IT products and services for a wide range of clients, concentrating on the most efficient and effective tools and methods to acquire, analyze, design, develop, test, implement, and integrate computer technology — both software and hardware. This division provides expertise in program and contract management, Oracle tools, balanced scorecards,



performance measurement, database administration, Web design and development, intelligent electronic forms and workflow development, software development, legacy system maintenance, and production services.

The Systems Engineering and Program Management Division (J78) provides services to Navy, Marine Corps, and other Federal agencies in the development, installation, technical operation,

testing, certification, and management of information systems. This division also designs, implements, administers, and maintains mail lists, directory services, and automated message-handling systems for the Defense Message System. A key component of the Navy's multilevel mail server and Fleet message exchange programs, this division provides both classified and unclassified information storage and retrieval.







SPAWAR Systems Center, Charleston's integrated products center is a significant asset for achieving and maintaining Sea Power 21.

The C4ISRT Command Lab

The C4ISRT Command Lab, or the IPC (Integrated Products Center) as it's commonly referred to, is SPAWAR's East Coast focal point, and supports the concept of a network-centric engineering environment. Simulated battle group and full-scale Fleet exercises are directed from this centrally located lab, providing a systems integration environment for network management, data collection and analysis, large-scale systems integration, and Fleet support.

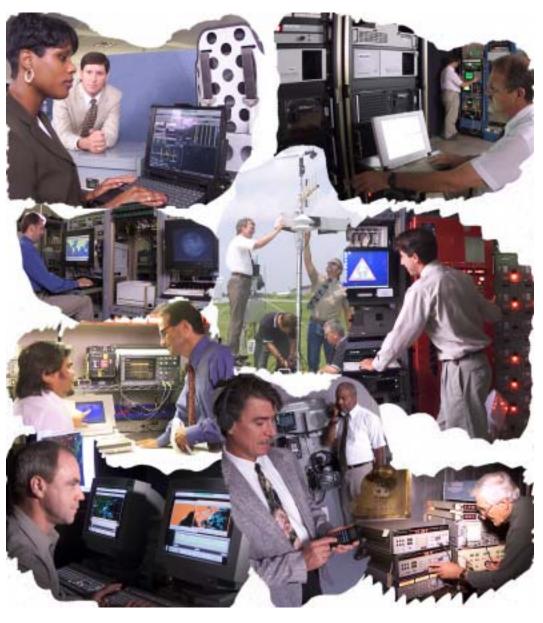
Using the backbone technical infrastructure, command assets (our people, our facilities, and our equipment) are dynamically orchestrated. Interfaced systems create operational configurations without physical relocation of equipment or personnel. Higher levels of integration are explored and perfected through use of this powerful tool; conversely, modeling and simulation allow evaluation of alternative system configurations before actually building new systems.

The IPC allows visitors to experience many of SPAWAR's capabilities in one place, just as a Fleet operator would. It is the ideal environment for exploring and expanding the network-centric warfare model, and for defining the next generation of warfare.

With these attributes, the command lab provides total solutions to complex customer requirements, quickly and economically.

A fully *netted* force + 21st Century warriors = FORCEnet — the foundation for Sea Power 21!

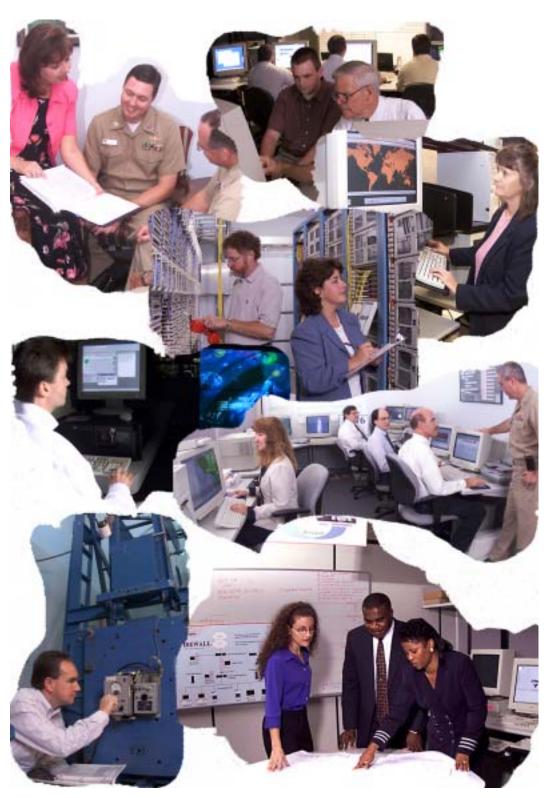
FORCEnet is the architecture of warriors, weapons, sensors, networks, decision aids and supporting systems integrated into a highly adaptive, human-centric, comprehensive maritime system that operates from seabed to space, from sea to land. FORCEnet is transforming information into combat power!







Excellence through teamwork — how we operate...



Command Systems Engineer

The command's chief engineer provides technical leadership and guidance to SPAWAR Systems Center Charleston's engineering departments. Working across organizational boundaries, the chief engineer coordinates commonality in engineering products and processes, and ensures that the technical path embarked upon by our various departments is consistent with the Joint Technical Architecture, and the Defense Information Infrastructure Common Operating Environment. The chief engineer strives to ensure our engineering practices not only reflect new technology and its rapidly changing pace, but also actually drive its path. The processes we implement provide a mechanism for forecasting the direction of technology, and facilitate consistent technical decisions across departments, platforms, and systems. By working across department boundaries, overlaps in engineering products and processes are reduced within the entire SPAWAR Systems Command.

Business Integrators

Each technical department within SPAWAR Systems Center, Charleston has a Business Integrator who serves as a technical advisor to the department head, and provides leadership in the command's marketing initiatives. Working together, and with the chief engineer, the business integrators develop strategies and recommend ways to improve current and future functions, productivity, and efficiency. The business integrators also manage the departments' technical business operations, including the integration and management of strategic business objectives. The business integrators ensure successful operations for a diverse customer market base, not only within their respective departments, but also throughout the entire SPAWAR Systems Command.

Deputy for Small Business

It is government policy to provide maximum practicable opportunities to small businesses, small disadvantaged businesses, HUBZone, women-owned and veteranowned small business concerns to participate in government acquisitions. Such concerns shall also have maximum opportunity to participate as subcontractors in contracts awarded by any executive agency, consistent with efficient contract performance as required by law. This office manages the command's small business program by reviewing all requirements greater than \$10,000 to ensure consideration of small businesses; monitors assigned program goals; and assists contracting officers, technical department personnel, and small business owners and representatives in small business matters.

Contracting

The Contracts Office provides unlimited contracting capability to the technical departments in support of their sponsors. We use the full spectrum of contracting techniques — indefinite delivery, indefinite quantity, pricing on a cost-reimbursement basis, grants, cooperative agreements, and other diverse transaction authorities. Our contract specialists are physically located within the various technical departments to develop business and contracting solutions for DoN, DoD, and non-DoD sponsors.





In summary...

Knowledge superiority is a key enabler of maritime power. Successful warfighting operations require collecting the right data, then securely

transporting and distributing that data in near real-time to the warfighter for analysis and synthesis to execute specific missions.

SPAWAR empowers the warfighter with that knowledge through the development, acquisition, and life cycle support of integrated

C4ISRT, IT, and space systems.

Along with the entire SPAWAR Systems Command, SPAWAR Systems Center, Charleston is focused on real requirements of today's world, as well as a comprehensive assessment of future needs. We

use revolutionary advances in information and communication technologies to transform the Navy into a knowledge-superior and network-centric force.

As the Navy turns to new and more complex ships and electronic systems, the flexibility of our facilities, our agile and adaptive organization, and our innovative business processes, provide the freedom to design, integrate, test, and operate state-of-the-art systems in realistic environments.

The engineering and technical talent and expertise of our people who staff the engineering laboratories and test beds enable



prompt problem simulation and corrective action. This approach virtually assures Fleet solutions. Nearby staging areas and military transport capabilities (including airlift) allow rapid assembly and shipment of required equipment. We strive to provide the Fleet with the best C4ISRT capability available today. We do it in a timely manner and at the best possible cost. *Anything less is unacceptable* — *to the Fleet, and to us.*

Projecting maritime power and influence in peace, crisis, and conflict, is the heart of our contribution to national security. French Author and Nobel Prize winner Henri Bergson (1859-1941) once said, "To exist is to change, to change is to mature, to mature is

to go on creating oneself endlessly." That profound statement is still relevant today. Perpetual change is required if we are to stay abreast of rapidly evolving technology.



for the sake of change, but daily improving the way we develop, install, maintain and support our products and train the people who use them. We continually reassess the way we do business — our methods, processes, and practices — to secure the United States' power and influence in the information age — from today's vision, comes tomorrow's reality...

FORCEnet = Sea Power 21!





SPAWAR Systems Center,

Charleston's

main engineering office is physically located on Naval Weapons Station Charleston, Southside in North Charleston, S.C.



Frequently called telephone numbers

3-218-6933
3-218-4181
8-218-5600
3-218-5500
3-218-5110
3-218-5555
3-218-5700
3-218-5501
3-218-4020
3-218-5115
3-218-4087
3-218-5300
3-218-4000

SPAWAR Systems Center, Charleston's DSN number is 588 (plus the 4-number extension of the individual you're calling)

If you are interested in doing business with SPAWAR Systems Center, Charleston, call one of the offices listed above, or visit our web site at sscc.spawar.navy.mil and click on Business Opportunities.

Team SPAWAR's organizational structure

The Space and Naval Warfare Command headquaters is located in
San Diego, California, and comprises five program directorates:
☐ Space Technology Systems
☐ Command, Control, and Combat Support Applications
■ Naval Networks and Information Assurance
☐ Communication Programs
☐ Intelligence, Surveillance, and Reconnaissance
Five Echelon III activities complete the SPAWAR team — working
together as one, speaking with one voice.
☐ SPAWAR Space Field Activity (Chantilly, Virginia)
☐ SPAWAR Information Technology Center (New Orleans,
Louisiana)
☐ SPAWAR Systems Center, Norfolk (Norfolk, Virginia)
☐ SPAWAR Systems Center, San Diego (San Diego, California)
☐ SPAWAR Systems Center, Charleston (Charleston, South Carolina)
SPAWAR is one of five Navy acquisition commands. With over 7,000
employees worldwide, SPAWAR receives fiscal resources from
congressional appropriations and various agencies. While headquarters,
SPAWAR Systems Center, Norfolk, and the Space Field Activity use a
traditional mission-funding system, the Systems Centers in San Diego and
Charleston receive funding through the Navy Working Capital Fund —
which means that we are a fee-for-service organization and earn money
through products and services provided to our customers. By aligning
ourselves with our customers, SPAWAR is able to provide increased
capability at an affordable price.
Around 4. he clock!
Around the World; around the clock!
the add
Worlds aroll II
of it, alou-

